FIG. 1

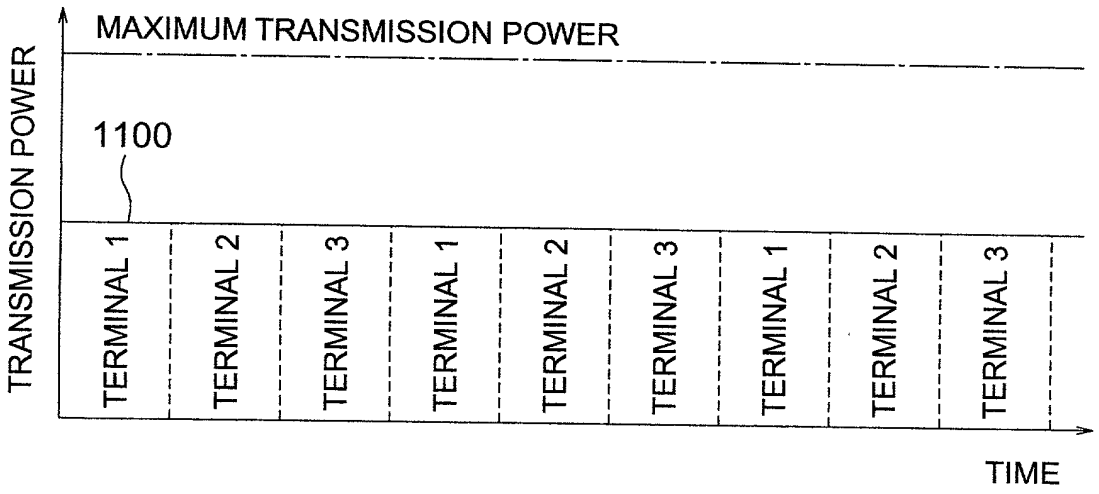
MAXIMUM TRANSMISSION POWER
TRANSMISSION POWER
1100
TERMINAL 1
TERMINAL 2
TERMINAL 3
TERMINAL 1
TERMINAL 2
TERMINAL 3
TERMINAL 1
TERMINAL 2
TERMINAL 3
TIME

FIG. 2

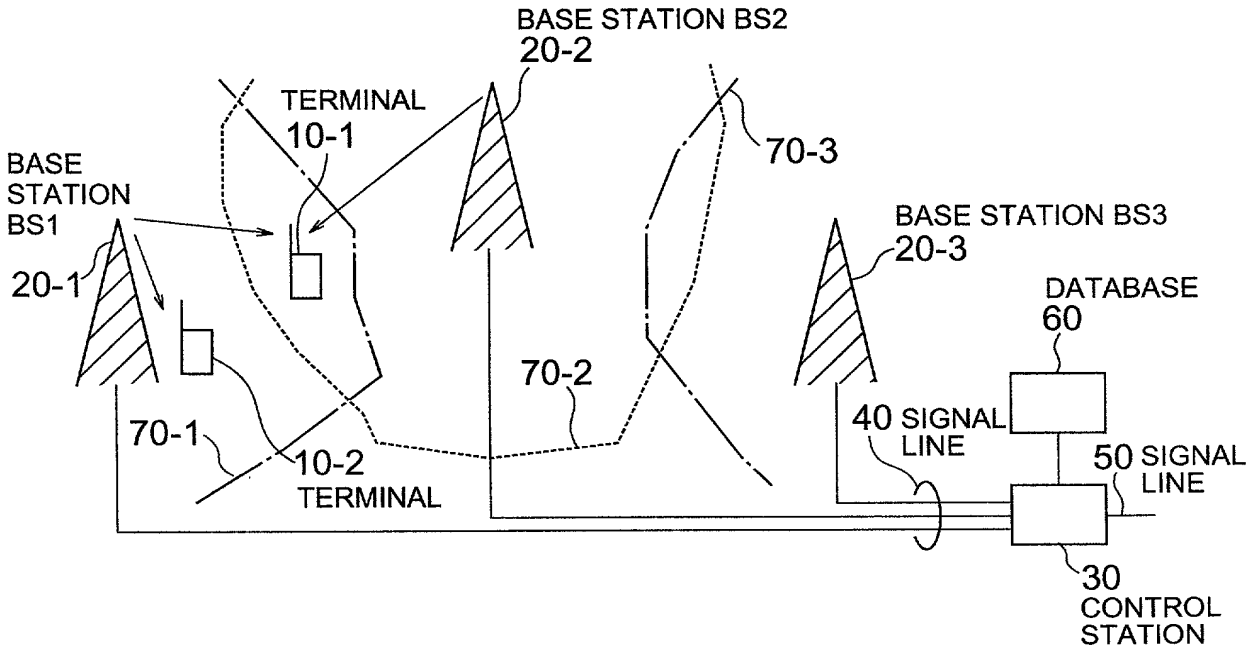

FIG. 3

200 DEVICE NUMBER	201 LOCATION ACREA	202 TRANSMISSION DATA QUANTITY	203 RECEPTION DATA QUANTITY	204 SERVICE CONTRACT TYPE	205 SERVICE TYPE	206 ADDITIONAL FEE
49840986080	BS1	456,561	4,499,490	ORDINARY	ORDINARY	500
89195094073	BS1	45,949	981,496	ORDINARY	ORDINARY	1,200
95435943199	BS2	98,160	2,456,406	PRIORITY	PRIORITY	0
91984902305	POWER BREAK	156,490	981,494	ORDINARY	ORDINARY	100
94506236096	BS3	89,496	894,046	ECONOMY	ECONOMY	200

FIG. 4

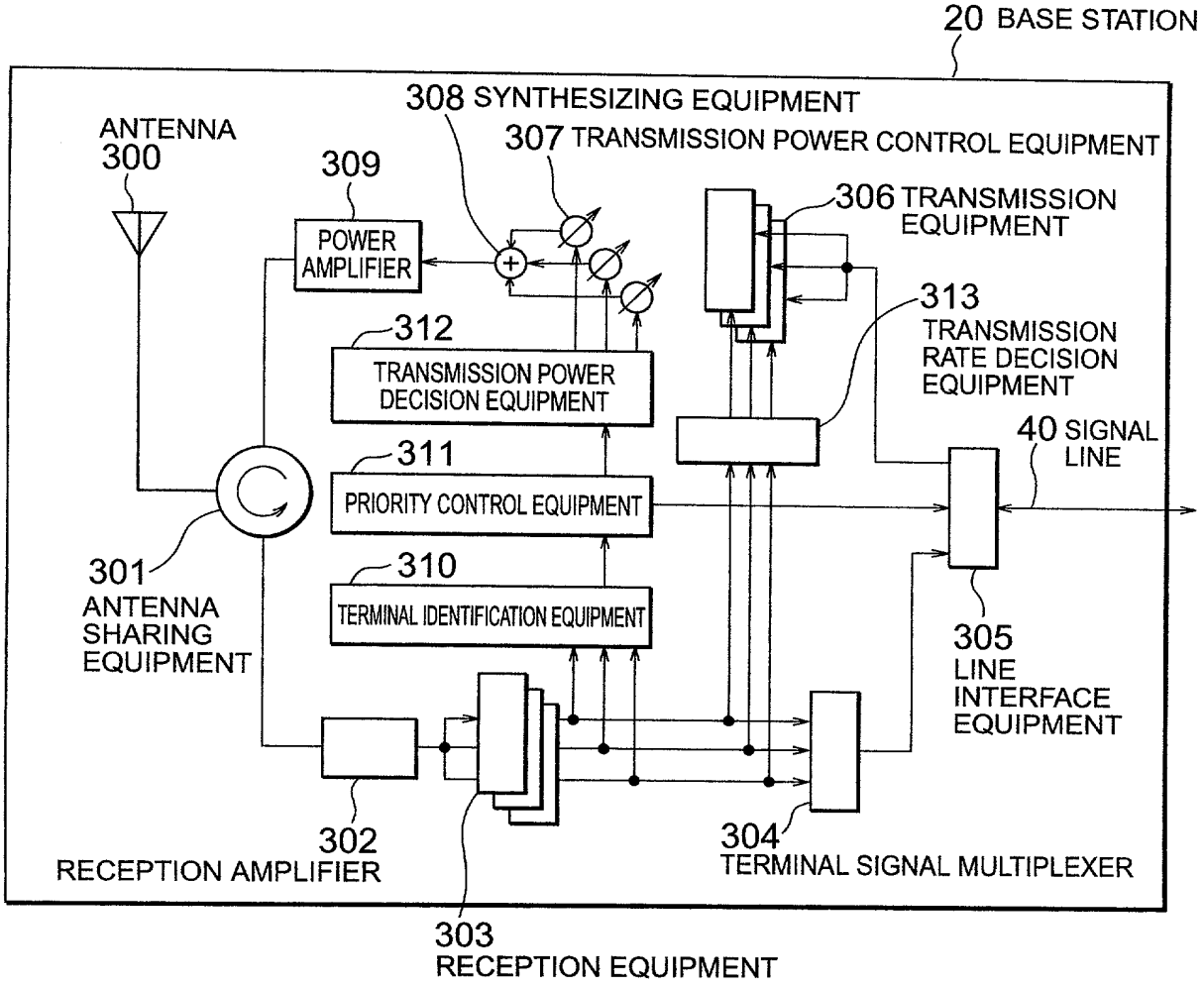
20 BASE STATION
308 SYNTHESIZING EQUIPMENT
307 TRANSMISSION POWER CONTROL EQUIPMENT
ANTENNA
300
309
POWER AMPLIFIER
306 TRANSMISSION EQUIPMENT
313
TRANSMISSION RATE DECISION EQUIPMENT
312
TRANSMISSION POWER DECISION EQUIPMENT
40 SIGNAL LINE
311
PRIORITY CONTROL EQUIPMENT
310
TERMINAL IDENTIFICATION EQUIPMENT
301
ANTENNA SHARING EQUIPMENT
305
LINE INTERFACE EQUIPMENT
302
RECEPTION AMPLIFIER
304
TERMINAL SIGNAL MULTIPLEXER
303
RECEPTION EQUIPMENT

FIG. 5

200 DEVICE NUMBER	401 COMMUNICATION START TIME	205 SERVICE TYPE
49840986080	11689	ORDINARY
89195094073	45803	ORDINARY

FIG. 6

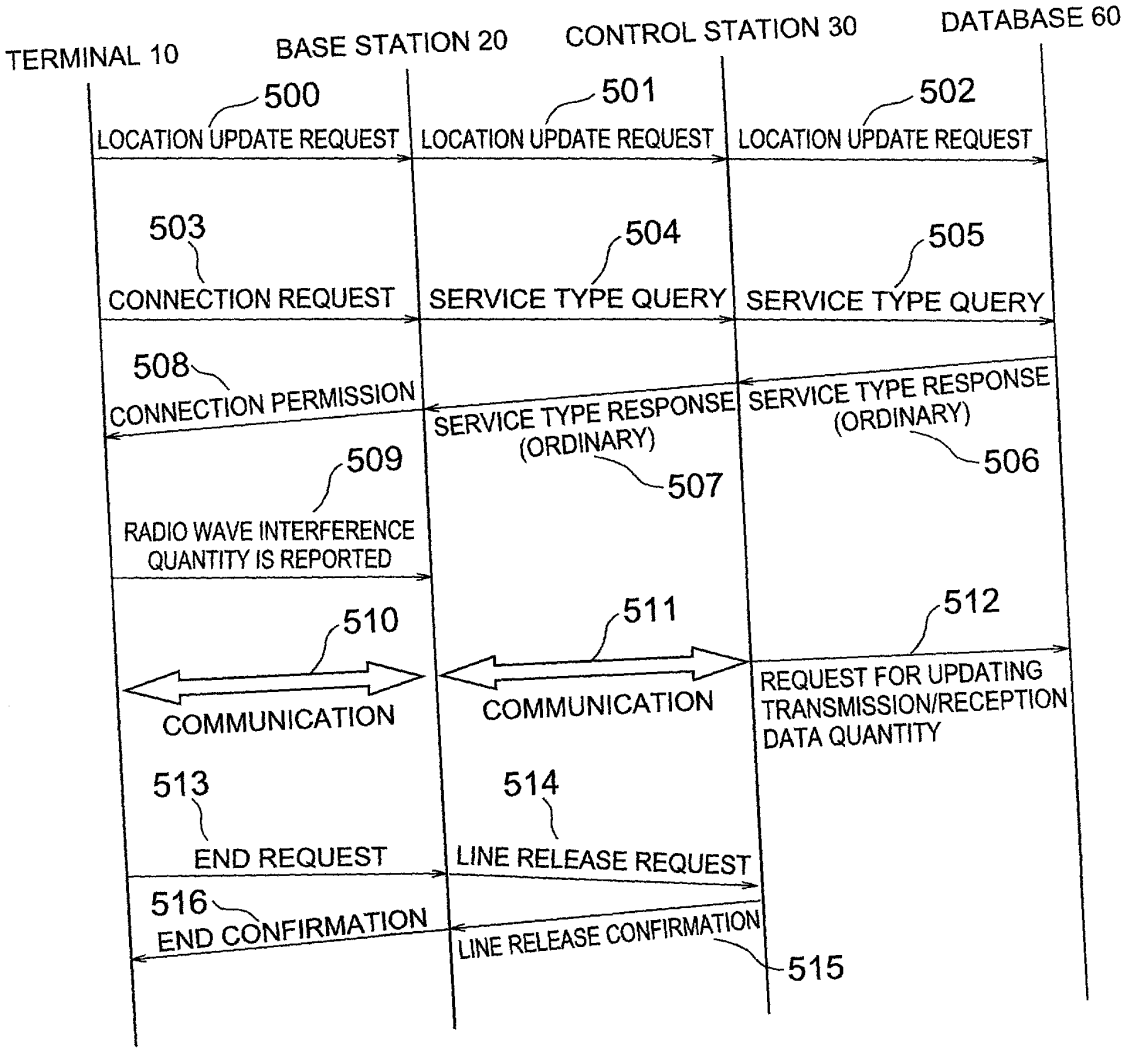

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FIG. 7

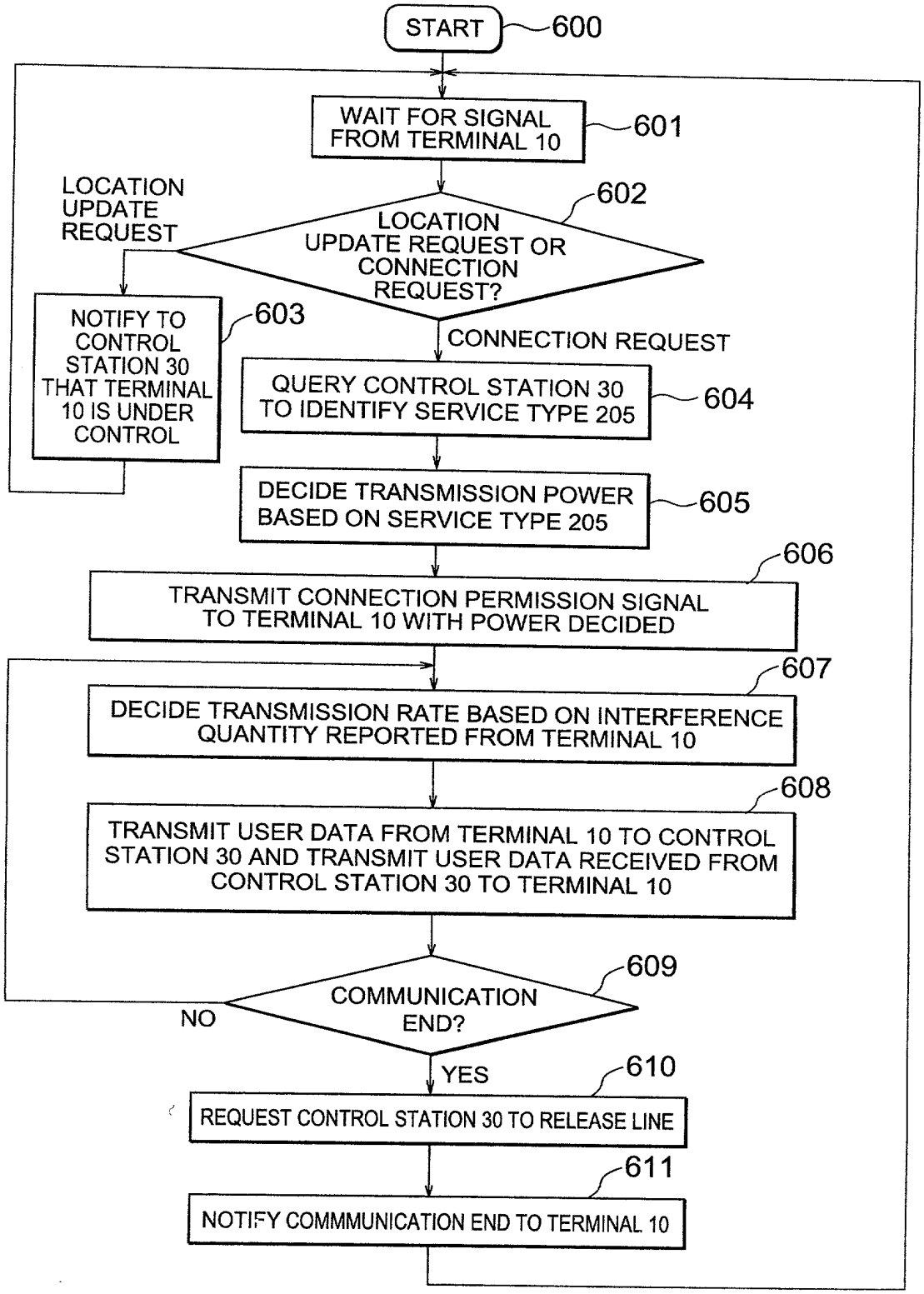

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FIG. 8

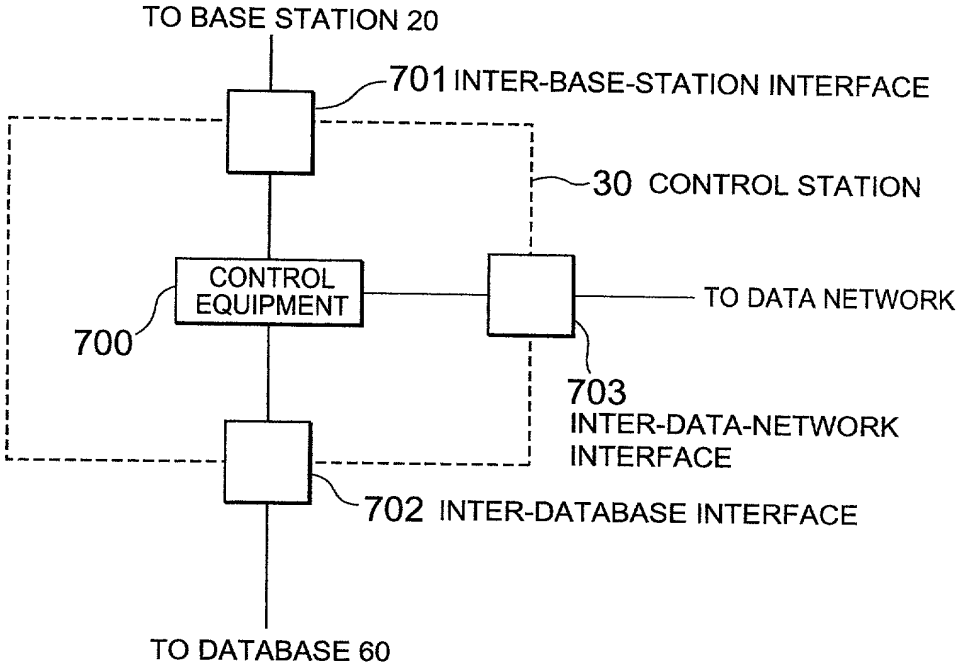
TO BASE STATION 20
701 INTER-BASE-STATION INTERFACE
30 CONTROL STATION
CONTROL EQUIPMENT
700
TO DATA NETWORK
703
INTER-DATA-NETWORK INTERFACE
702 INTER-DATABASE INTERFACE
TO DATABASE 60

FIG. 9

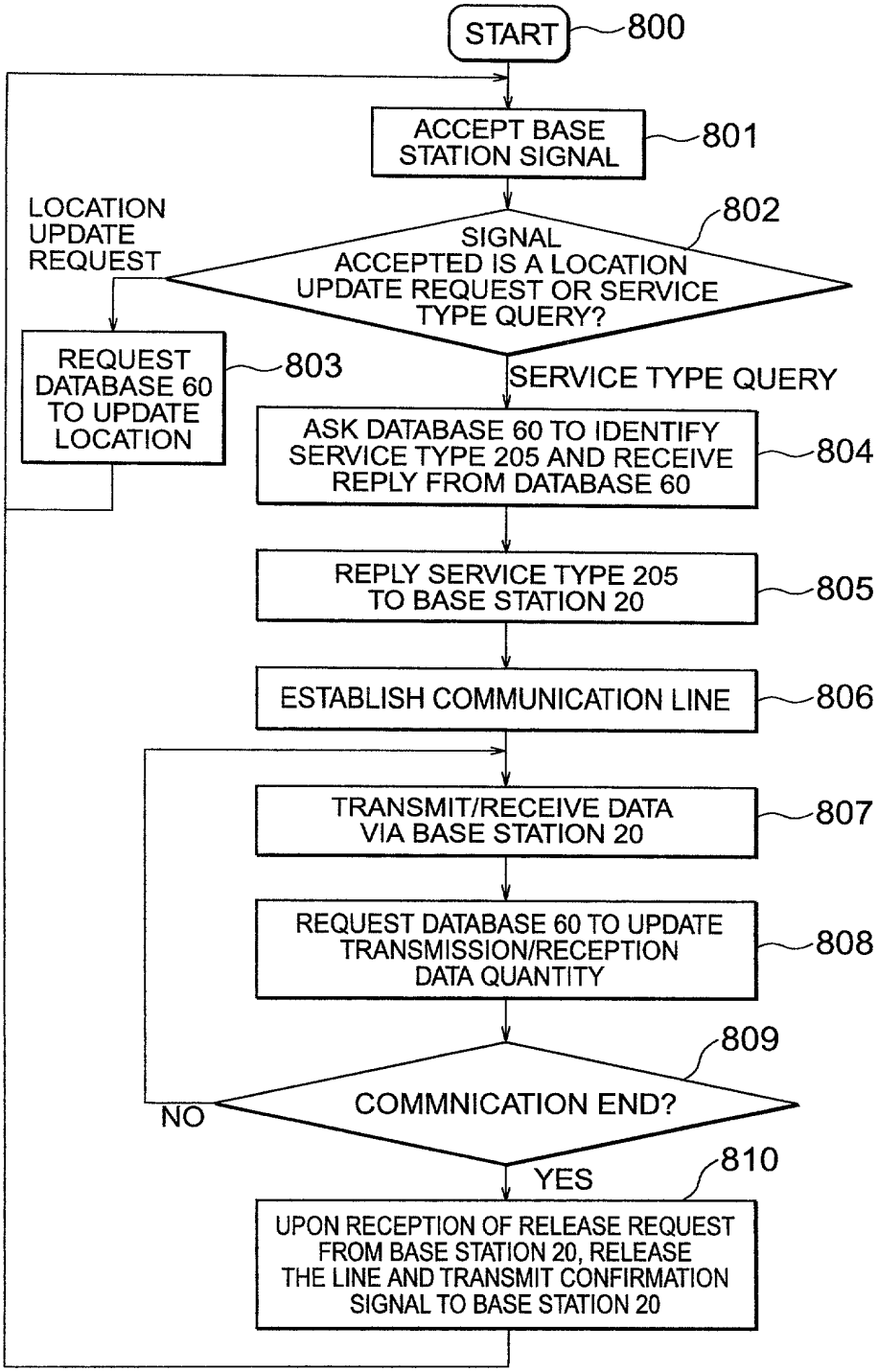

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FIG. 10

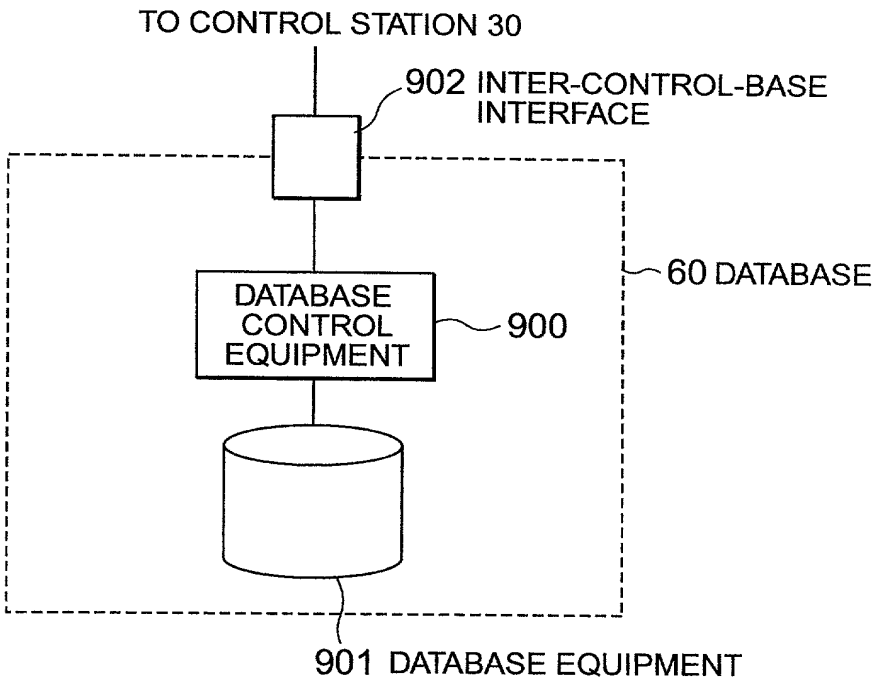
TO CONTROL STATION 30
902 INTER-CONTROL-BASE INTERFACE
60 DATABASE
DATABASE CONTROL EQUIPMENT
900
901 DATABASE EQUIPMENT

FIG. 11

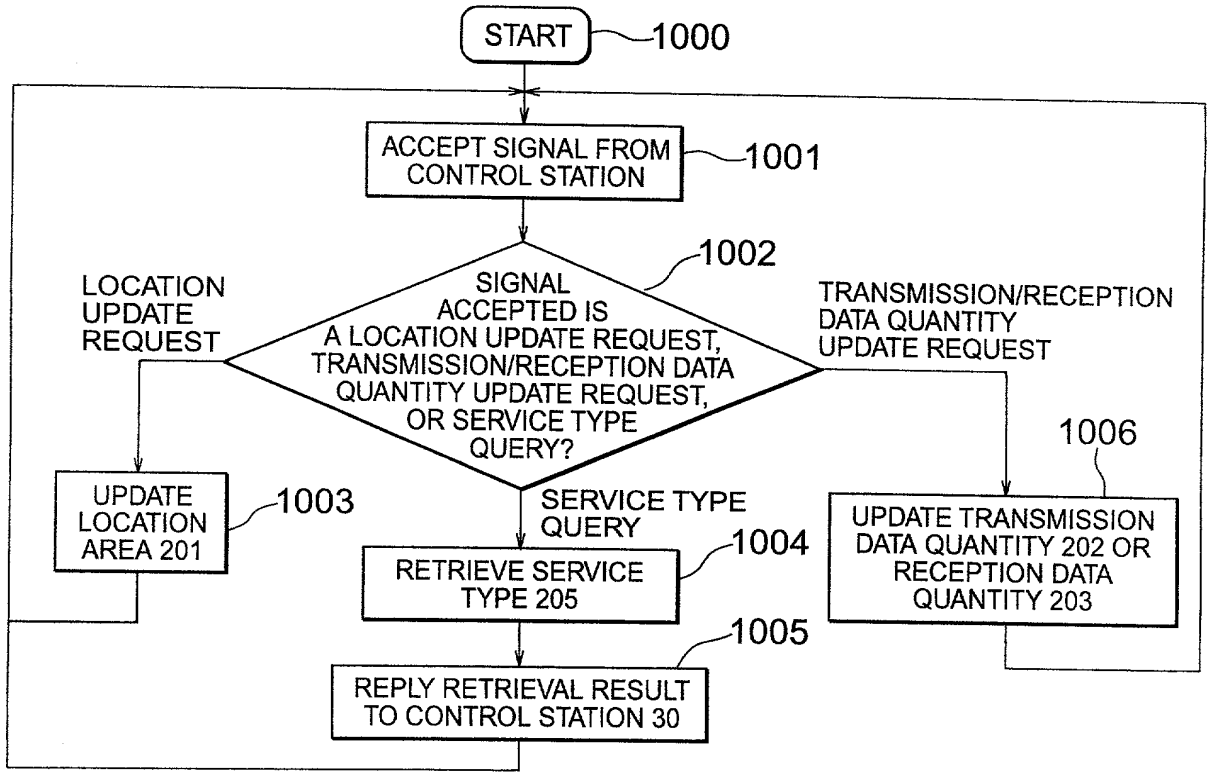
START
1000
ACCEPT SIGNAL FROM CONTROL STATION
1001
1002
SIGNAL ACCEPTED IS A LOCATION UPDATE REQUEST, TRANSMISSION/RECEPTION DATA QUANTITY UPDATE REQUEST, OR SERVICE TYPE QUERY?
LOCATION UPDATE REQUEST
TRANSMISSION/RECEPTION DATA QUANTITY UPDATE REQUEST
SERVICE TYPE QUERY
UPDATE LOCATION AREA 201
1003
RETRIEVE SERVICE TYPE 205
1004
REPLY RETRIEVAL RESULT TO CONTROL STATION 30
1005
UPDATE TRANSMISSION DATA QUANTITY 202 OR RECEPTION DATA QUANTITY 203
1006

FIG. 12

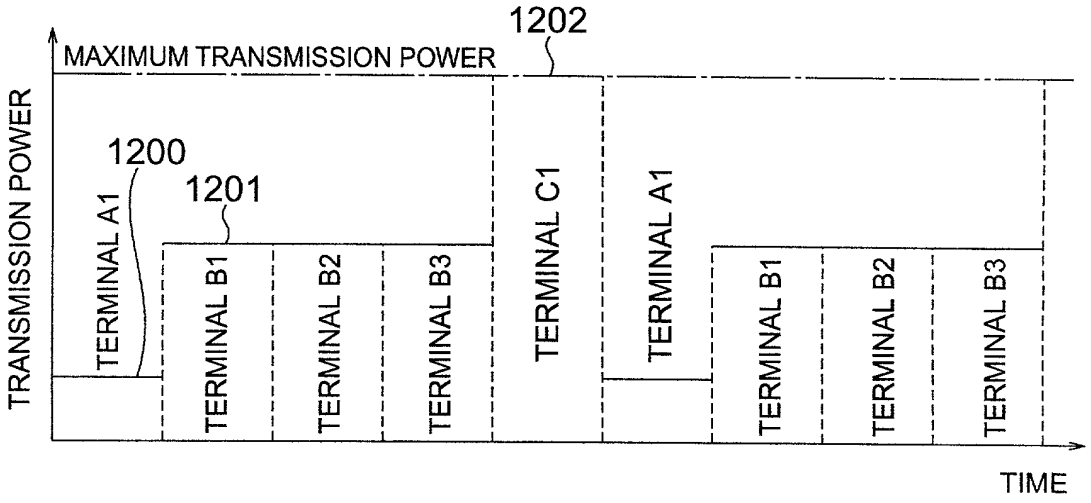
1202
MAXIMUM TRANSMISSION POWER
TRANSMISSION POWER
1200
1201
TERMINAL A1
TERMINAL B1
TERMINAL B2
TERMINAL B3
TERMINAL C1
TERMINAL A1
TERMINAL B1
TERMINAL B2
TERMINAL B3
TIME

FIG. 13

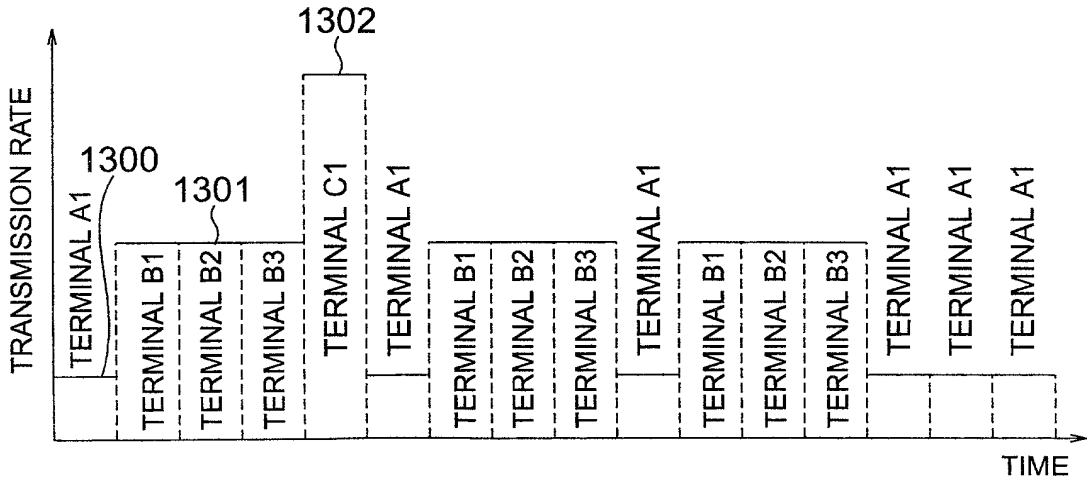
1302
TRANSMISSION RATE
1300
1301
TERMINAL A1
TERMINAL B1
TERMINAL B2
TERMINAL B3
TERMINAL C1
TERMINAL A1
TERMINAL B1
TERMINAL B2
TERMINAL B3
TERMINAL A1
TERMINAL B1
TERMINAL B2
TERMINAL B3
TERMINAL A1
TERMINAL A1
TERMINAL A1
TIME

FIG. 14

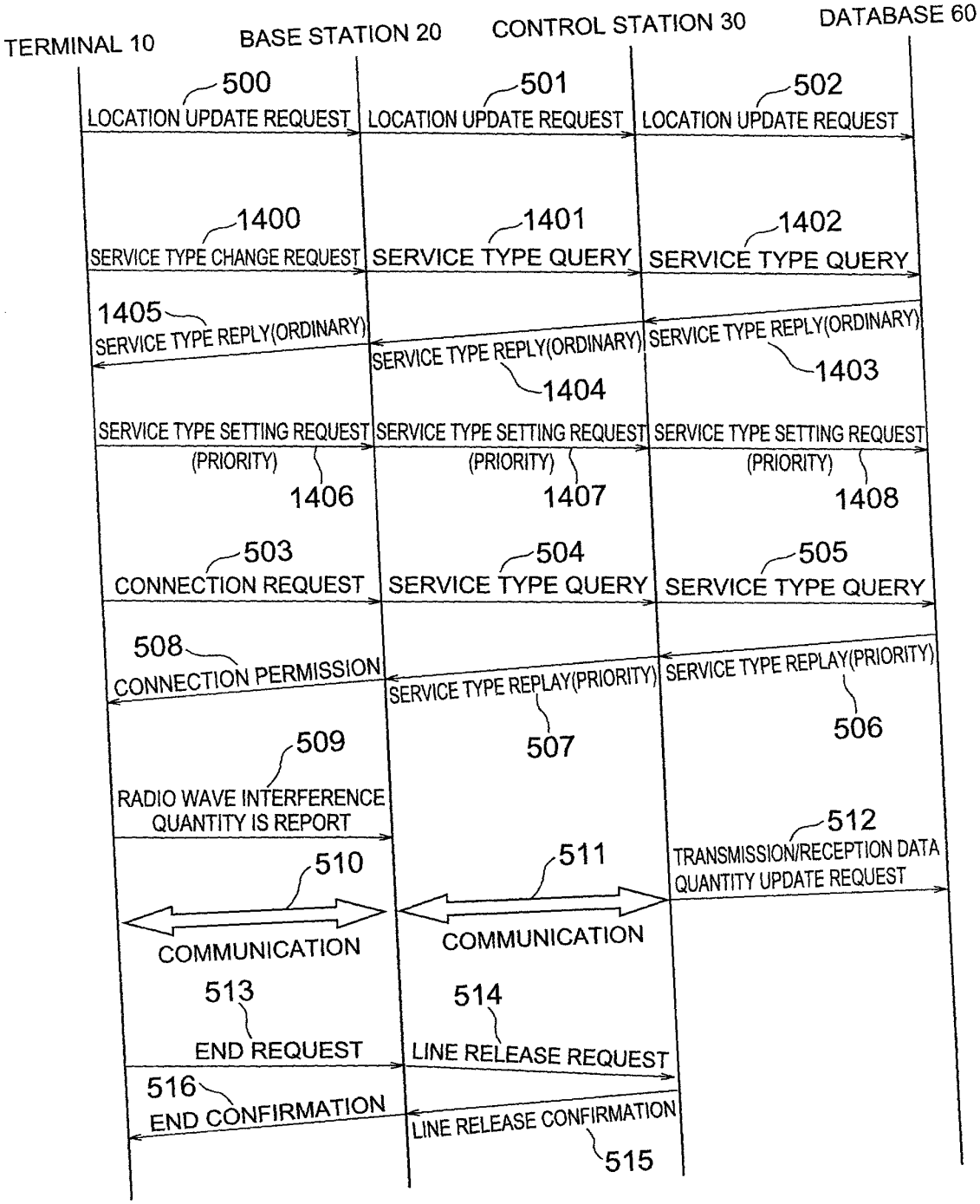

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FIG. 15A

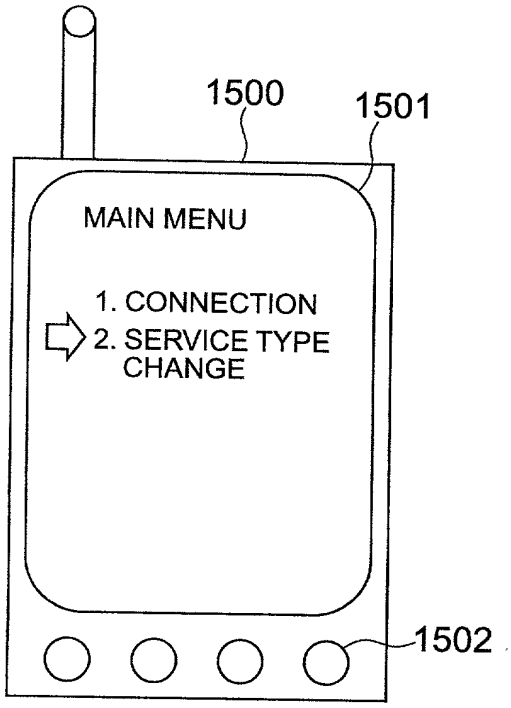

FIG. 15B

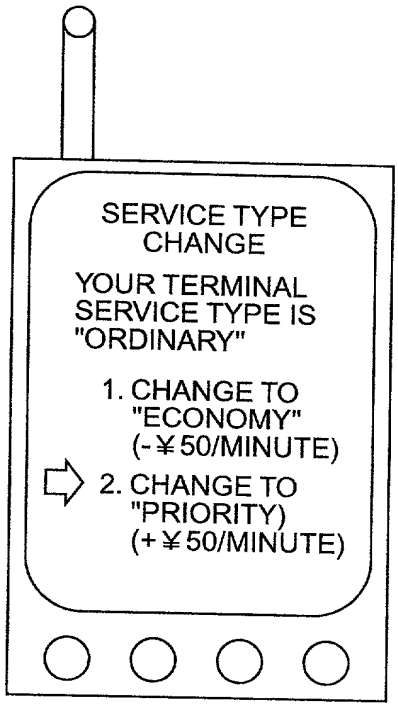

FIG. 15C

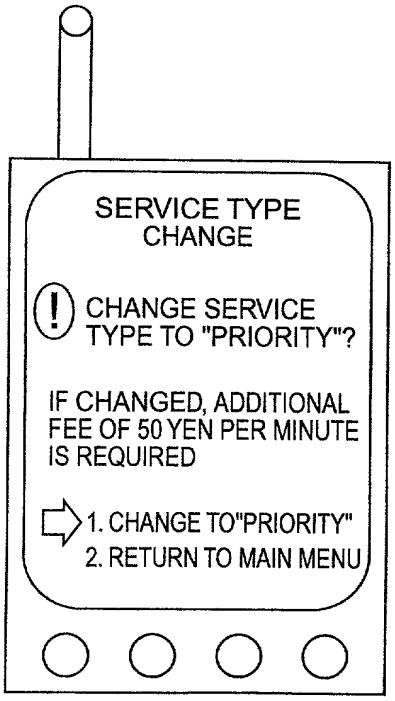

FIG. 15D

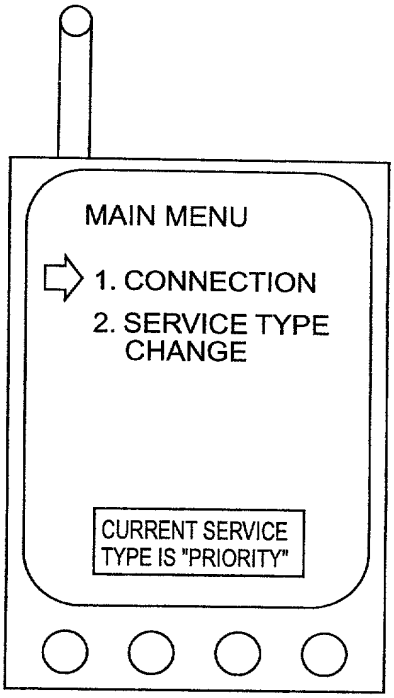

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FIG. 16

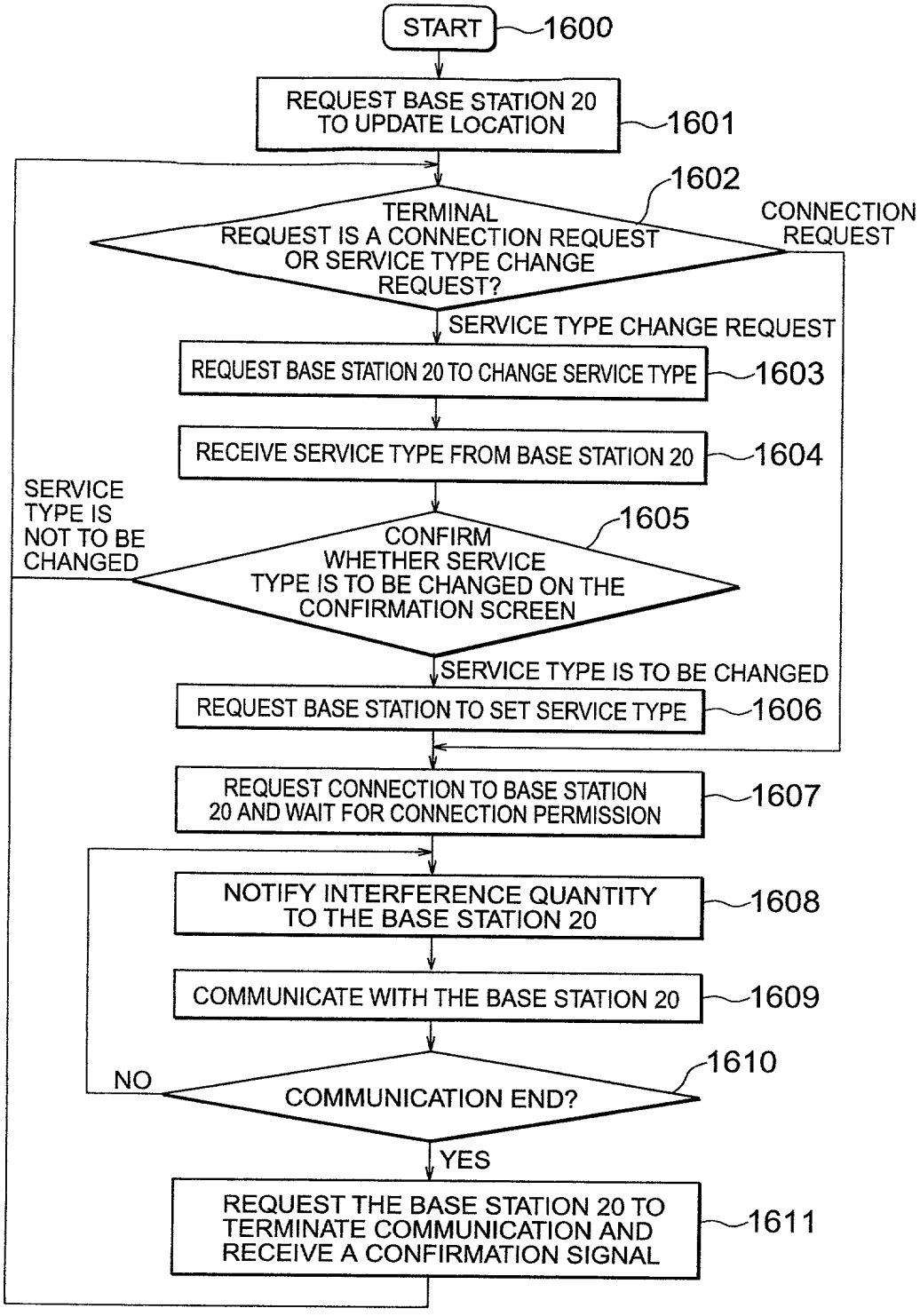

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FIG. 17

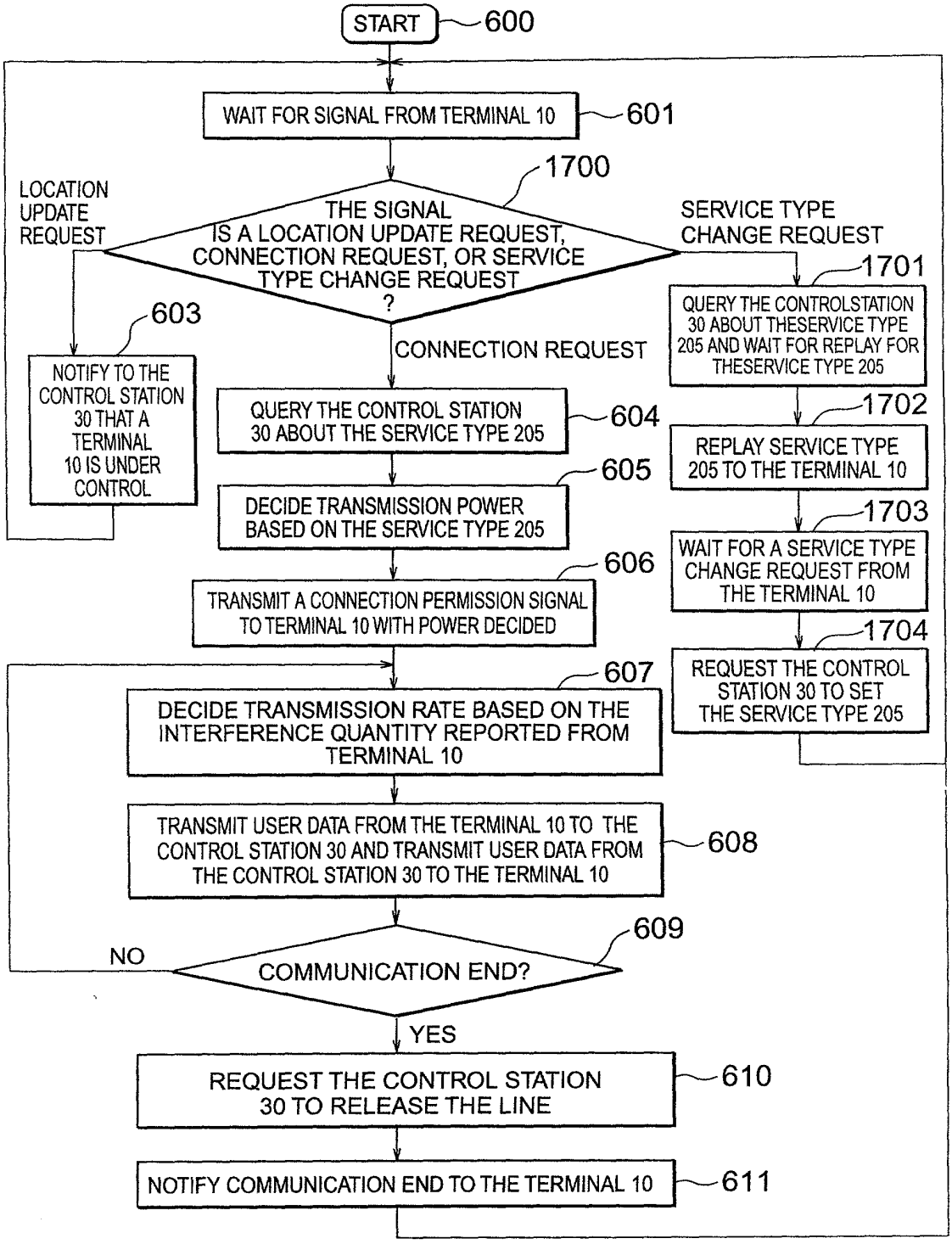

START
600
WAIT FOR SIGNAL FROM TERMINAL 10
601
1700
THE SIGNAL IS A LOCATION UPDATE REQUEST, CONNECTION REQUEST, OR SERVICE TYPE CHANGE REQUEST ?
LOCATION UPDATE REQUEST
CONNECTION REQUEST
SERVICE TYPE CHANGE REQUEST
603
NOTIFY TO THE CONTROL STATION 30 THAT A TERMINAL 10 IS UNDER CONTROL
QUERY THE CONTROL STATION 30 ABOUT THE SERVICE TYPE 205
604
DECIDE TRANSMISSION POWER BASED ON THE SERVICE TYPE 205
605
TRANSMIT A CONNECTION PERMISSION SIGNAL TO TERMINAL 10 WITH POWER DECIDED
606
DECIDE TRANSMISSION RATE BASED ON THE INTERFERENCE QUANTITY REPORTED FROM TERMINAL 10
607
TRANSMIT USER DATA FROM THE TERMINAL 10 TO THE CONTROL STATION 30 AND TRANSMIT USER DATA FROM THE CONTROL STATION 30 TO THE TERMINAL 10
608
COMMUNICATION END?
609
NO
YES
REQUEST THE CONTROL STATION 30 TO RELEASE THE LINE
610
NOTIFY COMMUNICATION END TO THE TERMINAL 10
611
1701
QUERY THE CONTROLSTATION 30 ABOUT THESERVICE TYPE 205 AND WAIT FOR REPLAY FOR THESERVICE TYPE 205
1702
REPLAY SERVICE TYPE 205 TO THE TERMINAL 10
1703
WAIT FOR A SERVICE TYPE CHANGE REQUEST FROM THE TERMINAL 10
1704
REQUEST THE CONTROL STATION 30 TO SET THE SERVICE TYPE 205

FIG. 18

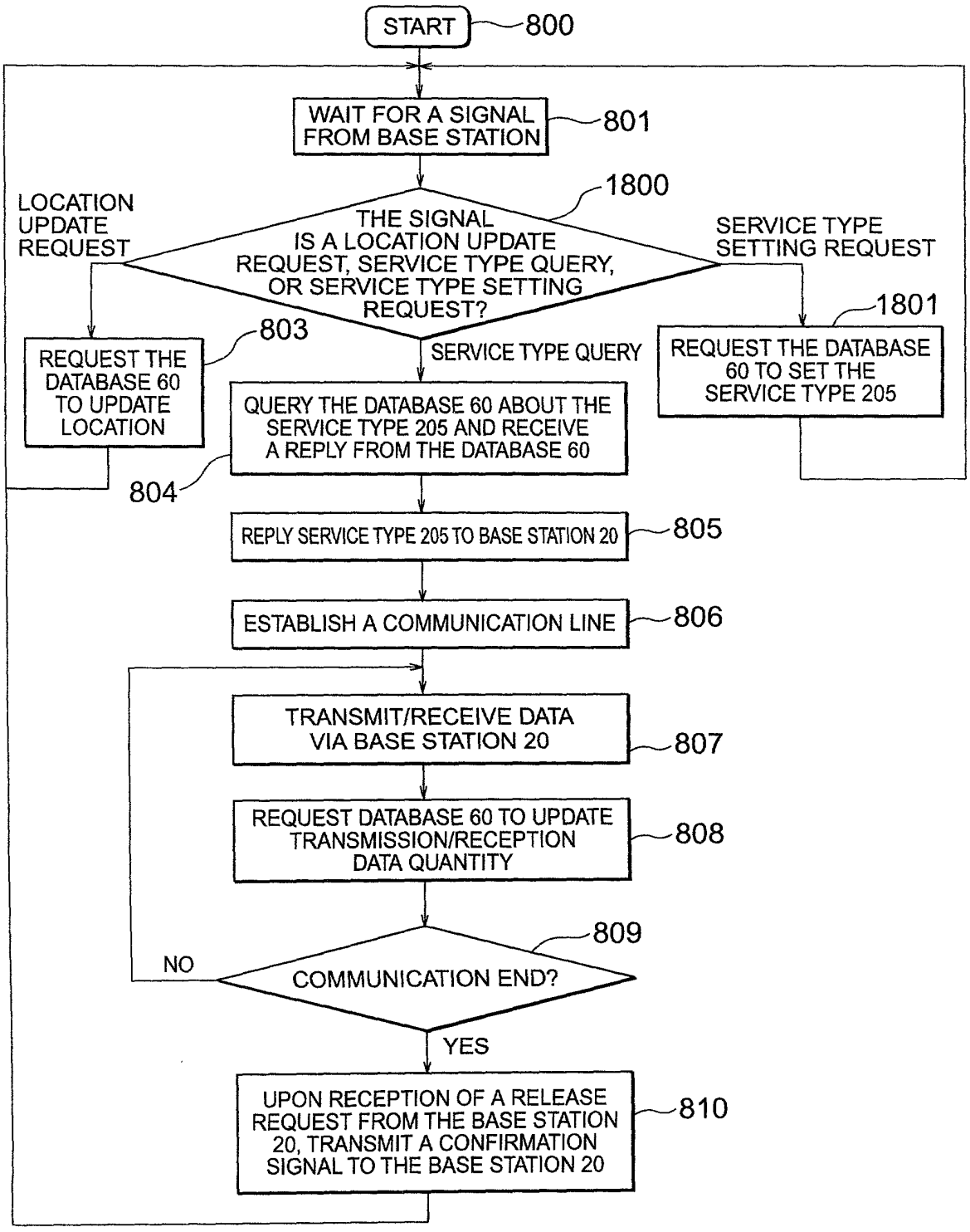
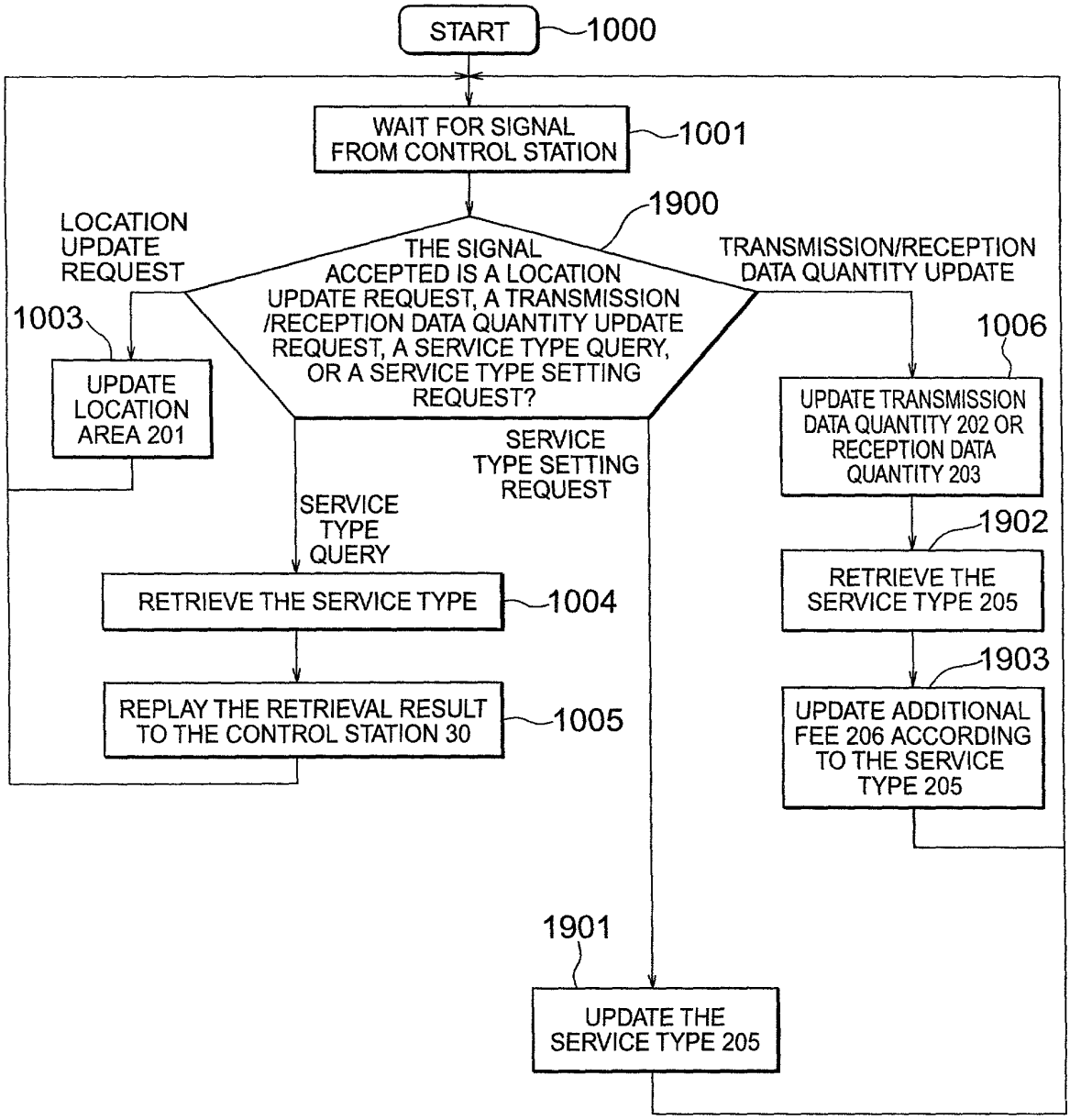

START
800
WAIT FOR A SIGNAL FROM BASE STATION
801
1800
LOCATION UPDATE REQUEST
THE SIGNAL IS A LOCATION UPDATE REQUEST, SERVICE TYPE QUERY, OR SERVICE TYPE SETTING REQUEST?
SERVICE TYPE SETTING REQUEST
1801
803
REQUEST THE DATABASE 60 TO UPDATE LOCATION
SERVICE TYPE QUERY
REQUEST THE DATABASE 60 TO SET THE SERVICE TYPE 205
QUERY THE DATABASE 60 ABOUT THE SERVICE TYPE 205 AND RECEIVE A REPLY FROM THE DATABASE 60
804
REPLY SERVICE TYPE 205 TO BASE STATION 20
805
ESTABLISH A COMMUNICATION LINE
806
TRANSMIT/RECEIVE DATA VIA BASE STATION 20
807
REQUEST DATABASE 60 TO UPDATE TRANSMISSION/RECEPTION DATA QUANTITY
808
809
NO
COMMUNICATION END?
YES
UPON RECEPTION OF A RELEASE REQUEST FROM THE BASE STATION 20, TRANSMIT A CONFIRMATION SIGNAL TO THE BASE STATION 20
810

FIG. 19



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